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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,344	03/09/2004	Yuichiro Ohta	2803.70023	1978

7590 03/05/2010  
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EXAMINER
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LUND, JEFFRIE ROBERT

ART UNIT	PAPER NUMBER
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1792

MAIL DATE	DELIVERY MODE
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03/05/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/796,344

**Applicant(s)**

OHTA, YUICHIRO

**Examiner**

Jeffrie R. Lund

**Art Unit**

1792

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 22-23 and 25-38 is/are pending in the application.
- 4a) Of the above claim(s) 30-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 22, 23, and 25-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 April 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

1. Newly submitted claims 30-38 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: the new claims are directed to a substrate bonding method. The inventions are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another and materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus as claimed can be used to practice another and materially different process such as coating or etching.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 30-38 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 22, 23, and 25-29 are rejected under 35 U.S.C. 103(a) as being

unpatentable over the Applicants Admitted Prior Art (AAPA) in view of Sekiguchi et al, JP 61-008479, and Elliotte JP 57-116947.

The AAPA discloses vacuum bonding chamber 16 for bonding liquid crystal display devices that include: a floor panel 50; a vacuum chamber 16 provided on the floor panel; a couple of vacuum pumps 18 provided on the floor panel and aligned parallel to each other with a gap therebetween; a pipe 30 connecting the vacuum chamber to each of the vacuum pumps for evacuating the vacuum chamber; and a flexible pipe 36 included in a part of the pipe; an inlet pipe 32, provided on the top part, vacuum chamber side of the pumps, included in a part of the pipe for connecting the flexible pipe to each of the corresponding vacuum pumps. Each of said vacuum pumps is seated upon a plurality of cushion members 70, which are positioned between said vacuum pump and an associated base member, and further wherein said base members are attached to the floor panel. (Specification and Figure 8)

The AAPA differs from the present invention in that AAPA does not teach: a fixing block provided on the floor panel; a mechanism including a chain block provided between the vacuum pumps and parallel to and on an opposite side of each of the inlet pipes with respect to the vacuum pump for maintaining a distance between the inlet pipe and the fixing block in an extending direction of the flexible pipe so as not to shrink the flexible pipe at a time of evacuation; and a quadrangular bar fixed to each of a rising portion of the inlet pipes and a chain block fixed to a central part of the quadrangular bar.

Sekiguchi et al teaches that vacuum bellows 26 in an exhaust line 27 between a

vacuum pump 28 and a vacuum chamber 11 contracts under vacuum pressure, and that a chain 35 attached to the center of a bar 33a that prevents movement of bellows in a direction away from the chain.

Elliott teaches preventing the movement of a flexible hose 59 with a quadrangular bar 43 supporting load elements 41 with a chain 103 attached to fixing blocks (one block 104 attaches the chain 103 to the bar 43 and a second block (not number) attaches the second end to a support 102). The chain is provided between the load elements and parallel to and on an opposite side of each end of the load elements. (Figure 1 and 2)

The motivation for adding the quadrangular bar, chain, and blocks of Elliott between and parallel to the vacuum pumps of the apparatus of AAPA is to prevent the bellows from contracting and moving the vacuum pumps as taught by Sekiguchi et al and Elliott. Furthermore, it has been held that applying a known technique to a known device ready for improvement to yield predictable results is obvious (see *KSR International Co. v. Teleflex Inc.*).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the quadrangular bar, chain, and blocks of Elliott to prevent the bellows from moving in the apparatus of the AAPA as taught by Sekiguchi et al.

#### ***Response to Arguments***

4. Applicant's arguments filed November 23, 2009 have been fully considered but they are not persuasive.

In response to applicant's arguments, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). The present invention is directed to the use of a beam and chain to prevent the movement of an object. Both Sekiguchi et al and Elliotte teach the use of a beam and a chain to prevent movement or to control movement. Thus, one of ordinary skill in the art reading Sekiguchi et al and Elliotte would recognize that a chain and a beam could be used to prevent the movement of the vacuum pumps. Furthermore, Elliotte specifically teaches the use of a beam and chain to control the movement of the vacuum bellows. Thus, the prior art clearly teaches the use of a beam and chain to prevent the movement of an object.

### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrie R. Lund whose telephone number is (571) 272-1437. The examiner can normally be reached on Monday-Thursday (10:00 am - 9:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on (571) 272-1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Jeffrie R. Lund/  
Primary Examiner  
Art Unit 1792

JRL  
2/28/10

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Art Unit: 1792

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